

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/476,485B
Source: IFW/6
Date Processed by STIC: 3/21/05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 03/21/2005

PATENT APPLICATION: US/09/476,485B

TIME: 14:12:04

Input Set : A:\10823619.app

Output Set: N:\CRF4\03212005\I476485B.raw

4 <110> APPLICANT: COLUCCI, M. GABRIELLA
 5 CHRISPEELS, MAARTEN J.
 6 MOORE, JEFFREY G.
 8 <120> TITLE OF INVENTION: PROGENITOR CELL PRESERVATION FACTORS AND METHODS FOR
 9 AND PRODUCTS OF THEIR USE
 11 <130> FILE REFERENCE: PHY-003US1/108236.119US1
 13 <140> CURRENT APPLICATION NUMBER: 09/476,485B
 14 <141> CURRENT FILING DATE: 1999-12-30
 16 <150> PRIOR APPLICATION NUMBER: 08/881,189
 17 <151> PRIOR FILING DATE: 1997-06-24
 19 <160> NUMBER OF SEQ ID NOS: 61
 21 <170> SOFTWARE: PatentIn version 3.0
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 939
 25 <212> TYPE: DNA
 26 <213> ORGANISM: Artificial Sequence
 28 <220> FEATURE:
 29 <223> OTHER INFORMATION: D1-FRIL.
 32 <400> SEQUENCE: 1
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 35 caaggtcatg ccacttctac aaacaatgtc ttacaagtca ccaagttaga cagtgcagga 120
 37 aacctgtga gttctagtgc ggaagagtg ttatattctg caccattgag cctttgggaa 180
 39 gactctgcgg tattgacaag ctttgacacc attatcaact ttgaaatctc aacaccttac 240
 41 acttctcgta tagctgatgg cttggccttc ttcatcgac cacctgactc tgtcatcagt 300
 43 tatcatgggtg gttttcttgg actctttccc aacgcaaaca ctctcaaca ctctccacc 360
 45 tctgaaaacc aaaccaccac taaggctgca tcaagcaacg ttgttgctgt tgaatttgac 420
 47 acctatctta atcccgatta tggatgacca aactacatac acatcggaat tgacgtcaac 480
 49 tctattagat ccaaggtaac tgctaagtgg gactggcaaa atgggaaaat agccactgca 540
 51 cacattagct ataactctgt ctctaaaaga ctatctgtta ctagttatta tgctgggagt 600
 53 aaacctgcga ctctctccta tgatattgag ttacatacag tgcttcctga atgggtcaga 660
 55 gtagggttat ctgcttcaac tggacaagat aaagaaagaa ataccgttca ctcatgggtct 720
 57 ttcacttcaa gcttgtggac caatgtggcg aagaaggaga atgaaaacaa gtatattaca 780
 59 agaggcggttc tgtgatgata tatgtgtatc aatgattttc tatgttataa gcatgtaatg 840
 61 tgcgatgagt caataatcac aagtacagtg tagtacttgt atgttggttg tgtaagagtc 900
 63 agtttgcttt taataataac aagtgcagtt agtacttgt 939
 67 <210> SEQ ID NO: 2
 68 <211> LENGTH: 264
 69 <212> TYPE: PRT
 70 <213> ORGANISM: Artificial Sequence
 72 <220> FEATURE:
 73 <223> OTHER INFORMATION: D1-FRIL.
 76 <400> SEQUENCE: 2
 77 Ala Gln Ser Leu Ser Phe Ser Phe Thr Lys Phe Asp Pro Asn Gln Glu

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78 1          5          10          15
80 Asp Leu Ile Phe Gln Gly His Ala Thr Ser Thr Asn Asn Val Leu Gln
81          20          25          30
83 Val Thr Lys Leu Asp Ser Ala Gly Asn Pro Val Ser Ser Ser Ala Gly
84          35          40          45
86 Arg Val Leu Tyr Ser Ala Pro Leu Arg Leu Trp Glu Asp Ser Ala Val
87          50          55          60
89 Leu Thr Ser Phe Asp Thr Ile Ile Asn Phe Glu Ile Ser Thr Pro Tyr
90 65          70          75          80
92 Thr Ser Arg Ile Ala Asp Gly Leu Ala Phe Phe Ile Ala Pro Pro Asp
93          85          90          95
95 Ser Val Ile Ser Tyr His Gly Gly Phe Leu Gly Leu Phe Pro Asn Ala
96          100          105          110
98 Asn Thr Leu Asn Asn Ser Ser Thr Ser Glu Asn Gln Thr Thr Thr Lys
99          115          120          125
101 Ala Ala Ser Ser Asn Val Val Ala Val Glu Phe Asp Thr Tyr Leu Asn
102          130          135          140
104 Pro Asp Tyr Gly Asp Pro Asn Tyr Ile His Ile Gly Ile Asp Val Asn
105 145          150          155          160
107 Ser Ile Arg Ser Lys Val Thr Ala Lys Trp Asp Trp Gln Asn Gly Lys
108          165          170          175
110 Ile Ala Thr Ala His Ile Ser Tyr Asn Ser Val Ser Lys Arg Leu Ser
111          180          185          190
113 Val Thr Ser Tyr Tyr Ala Gly Ser Lys Pro Ala Thr Leu Ser Tyr Asp
114          195          200          205
116 Ile Glu Leu His Thr Val Leu Pro Glu Trp Val Arg Val Gly Leu Ser
117          210          215          220
119 Ala Ser Thr Gly Gln Asp Lys Glu Arg Asn Thr Val His Ser Trp Ser
120 225          230          235          240
122 Phe Thr Ser Ser Leu Trp Thr Asn Val Ala Lys Lys Glu Asn Glu Asn
123          245          250          255
125 Lys Tyr Ile Thr Arg Gly Val Leu
126          260
129 <210> SEQ ID NO: 3
130 <211> LENGTH: 1005
131 <212> TYPE: DNA
132 <213> ORGANISM: Artificial Sequence
134 <220> FEATURE:
135 <223> OTHER INFORMATION: Nucleic acid sequence of the naturally-occurring
136 D1-FRIL protein.
139 <400> SEQUENCE: 3
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142 tcagccgcac agtcattgtc atttagtttc accaagtttg atcctaacca agaggatctt 120
144 atcttccaag gtcattgccac ttctacaaac aatgtcttac aagtcaccaa gttagacagt 180
146 gcaggaaacc ctgtgatttc tagtgcgggg agagtgttat attctgcacc attg'gcctt 240
148 tgggaagact ctgcggtatt gacaagcttt gacaccatta tcaactttga aatctcaaca 300
150 ccttacactt ctggtatagc tgatggcttg gccttcttca ttgcaccacc tgactctgtc 360
152 atcagttatc atgggtggtt tcttggtgactc tttcccaacg caaacactct caacaactct 420
154 tccacctctg aaaaccaaac caccactaag gctgcatcaa gcaacgttgt tgctgttgaa 480

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156 tttgacacct atcttaatcc cgattatggt gatccaaact acatacacat cggaattgac      540
158 gtcaactcta ttagatccaa ggtaactgct aagtgggact ggcaaatgg gaaaatagcc      600
160 actgcacaca ttagctataa ctctgtctct aaaagactat ctgttactag ttattatgct      660
162 gggagtaaac ctgcgactct ctctatgat attgagttac atacagtgct tcctgaatgg      720
164 gtcagagtag ggttatctgc ttcaactgga caagataaag aaagaaatac cgttcactca      780
166 tggctctttca cttcaagctt gtggaccaat gtggcgaaga aggagaatga aaacaagtat      840
168 attacaagag gcgttctgtg atgatatatg tgtatcaatg attttctatg ttataagcat      900
170 gtaatgtgcg atgagtcaat aatcacaagt acagtgtagt acttgtatgt tgtttgtgta      960
172 agagtcagtt tgcttttaat aataacaagt gcagttagta cttgt                      1005
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176 <211> LENGTH: 22
177 <212> TYPE: PRT
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Signal sequence from the FRIL family isolated from
182     Dolichos lab lab
185 <400> SEQUENCE: 4
186 Met Ala Ser Ser Asn Leu Leu Thr Leu Ala Leu Phe Leu Val Leu Leu
187 1           5           10           15
189 Thr His Ala Asn Ser Ala
190           20
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194 <211> LENGTH: 914
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: Pv-FRIL.
202 <400> SEQUENCE: 5
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205 caagggtgatg ccacttctac aaacaatgtc ttacaactca ctaagttaga cagtggagga      120
207 aaccctgtgg gtgctagtgt gggaagagtg ttattctctg caccatttca tctttgggaa      180
209 aactctatgg cagtgtcaag ctttgaaact aatctcacca ttcaaatctc aacacctcac      240
211 ccttattatg cagctgatgg ctttgccttc ttccttgcac cacatgacac tgtcatccct      300
213 ccaaattctt ggggcaaatt ccttggactc tactcaaacg ttttcagaaa ctccccacc      360
215 tctgaaaacc aaagcttttg tgatgtcaat actgactcaa gagttgttgc tgtcgaattt      420
217 gacaccttcc ctaatgccaa tattgatcca aattacagac acattggaat cgatgtgaac      480
219 tctattaagt ccaaggaaac tgctaggtgg gagtggcaaa atgggaaaac ggccactgca      540
221 cgcatcagct ataactctgc ctctaaaaaa tcaactgtta ctacgtttta tcctgggatg      600
223 gaagttgtgg ctctctccca tgatgttgac ttacatgcag agcttcctga atgggttaga      660
225 gtagggttat ctgcttcaac tggagaggag aaacaaaaaa ataccattat ctcatggtct      720
227 ttcacttcaa gcttgaagaa caacgaggtg aaggagccga aagaagacat gtatattgca      780
229 aacgttgtgc gatcatatac atggatcaat gacgttctat cttatataag caataaataa      840
231 atgtatgatg cactcaataa taatcacaag tacgtacggt gtagtacttg tatgttgttt      900
233 atgaaaaaaa aaaa
237 <210> SEQ ID NO: 6
238 <211> LENGTH: 279
239 <212> TYPE: PRT
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:

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243 <223> OTHER INFORMATION: Pv-FRIL.

246 <400> SEQUENCE: 6

247 Ala Gln Ser Leu Ser Phe Asn Phe Thr Lys Phe Asp Leu Asp Gln Lys

248 1 5 10 15

250 Asp Leu Ile Phe Gln Gly Asp Ala Thr Ser Thr Asn Asn Val Leu Gln

251 20 25 30

253 Leu Thr Lys Leu Asp Ser Gly Gly Asn Pro Val Gly Ala Ser Val Gly

254 35 40 45

256 Arg Val Leu Phe Ser Ala Pro Phe His Leu Trp Glu Asn Ser Met Ala

257 50 55 60

259 Val Ser Ser Phe Glu Thr Asn Leu Thr Ile Gln Ile Ser Thr Pro His

260 65 70 75 80

262 Pro Tyr Tyr Ala Ala Asp Gly Phe Ala Phe Phe Leu Ala Pro His Asp

263 85 90 95

265 Thr Val Ile Pro Pro Asn Ser Trp Gly Lys Phe Leu Gly Leu Tyr Ser

266 100 105 110

268 Asn Val Phe Arg Asn Ser Pro Thr Ser Glu Asn Gln Ser Phe Gly Asp

269 115 120 125

271 Val Asn Thr Asp Ser Arg Val Val Ala Val Glu Phe Asp Thr Phe Pro

272 130 135 140

274 Asn Ala Asn Ile Asp Pro Asn Tyr Arg His Ile Gly Ile Asp Val Asn

275 145 150 155 160

277 Ser Ile Lys Ser Lys Glu Thr Ala Arg Trp Glu Trp Gln Asn Gly Lys

278 165 170 175

280 Thr Ala Thr Ala Arg Ile Ser Tyr Asn Ser Ala Ser Lys Lys Ser Thr

281 180 185 190

283 Val Thr Thr Phe Tyr Pro Gly Met Glu Val Val Ala Leu Ser His Asp

284 195 200 205

286 Val Asp Leu His Ala Glu Leu Pro Glu Trp Val Arg Val Gly Leu Ser

287 210 215 220

289 Ala Ser Thr Gly Glu Glu Lys Gln Lys Asn Thr Ile Ile Ser Trp Ser

290 225 230 235 240

292 Phe Thr Ser Ser Leu Lys Asn Asn Glu Val Lys Glu Pro Lys Glu Asp

293 245 250 255

295 Met Tyr Ile Ala Asn Val Val Arg Ser Tyr Thr Trp Ile Asn Asp Val

296 260 265 270

298 Leu Ser Tyr Ile Ser Asn Lys

299 275

302 <210> SEQ ID NO: 7

303 <211> LENGTH: 678

304 <212> TYPE: DNA

305 <213> ORGANISM: Artificial Sequence

307 <220> FEATURE:

308 <223> OTHER INFORMATION: YamFril partial mRNA sequence.

311 <400> SEQUENCE: 7

312 acgaagtctg acagcgacca aaaggatctt atgttccaag gtcataccat ttctagcagc 60

314 aatgtcatat aactcaccaa gttagacagt aatggaaacc ctgtgagtac cagtgtggga 120

316 agagtgttat actctgcacc attgcgcctt tgggaaagct ctacagtagt gtcaaccttt 180

318 gagaccactt tcacctttca aatctcaaca ccttacacta gtcctcctgg tgatgggctc 240

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320 gccttcttcc ttgcaccata tgacactgtc atccctccaa attctgctgg caatcttctt 300
322 ggactctttc ctaacttaaa tgctttaaga aactccacca ccagtaaaga aaccactatt 360
324 gatgtcaatg ctgcatctaa caacgttggt gccgttgaat ttgacaccta ccctaacgac 420
326 aatattggtg atccaagata caaacacatt ggaatcgatg tcaactctat caggtccaag 480
328 gcaactgttg cgtgggactg gcaaaatggg aaaacagcca ctgcacacat cagctataac 540
330 tctgcctcta aaagactatc tgttactact ttttatcctg ggggtaaagc tgtgagtctt 600
332 tcccatgacg ttgagctcac tcaagtgtt cctcaatgga ttagagtagg gttctctgct 660
334 tcaacaggat tagagaaa 678
338 <210> SEQ ID NO: 8
339 <211> LENGTH: 234
340 <212> TYPE: PRT
341 <213> ORGANISM: Artificial Sequence
343 <220> FEATURE:
344 <223> OTHER INFORMATION: YamFril deduced amino acid squence.
347 <400> SEQUENCE: 8
348 Ala Gln Ser Val Ser Phe Thr Phe Thr Lys Phe Asp Ser Asp Gln Lys
349 1 5 10 15
351 Asp Leu Met Phe Gln Gly His Thr Ile Ser Ser Ser Asn Val Ile Gln
352 20 25 30
354 Leu Thr Lys Leu Asp Ser Asn Gly Asn Pro Val Ser Thr Ser Val Gly
355 35 40 45
357 Arg Val Leu Tyr Ser Ala Pro Leu Arg Leu Trp Glu Ser Ser Thr Val
358 50 55 60
360 Val Ser Thr Phe Glu Thr Thr Phe Thr Phe Gln Ile Ser Thr Pro Tyr
361 65 70 75 80
363 Thr Ser Pro Pro Gly Asp Gly Leu Ala Phe Phe Leu Ala Pro Tyr Asp
364 85 90 95
366 Thr Val Ile Pro Pro Asn Ser Ala Gly Asn Leu Leu Gly Leu Phe Pro
367 100 105 110
369 Asn Leu Asn Ala Leu Arg Asn Ser Thr Thr Ser Lys Glu Thr Thr Ile
370 115 120 125
372 Asp Val Asn Ala Ala Ser Asn Asn Val Val Ala Val Glu Phe Asp Thr
373 130 135 140
375 Tyr Pro Asn Asp Asn Ile Gly Asp Pro Arg Tyr Lys His Ile Gly Ile
376 145 150 155 160
378 Asp Val Asn Ser Ile Arg Ser Lys Ala Thr Val Ala Trp Asp Trp Gln
379 165 170 175
381 Asn Gly Lys Thr Ala Thr Ala His Ile Ser Tyr Asn Ser Ala Ser Lys
382 180 185 190
384 Arg Leu Ser Val Thr Thr Phe Tyr Pro Gly Gly Lys Ala Val Ser Leu
385 195 200 205
387 Ser His Asp Val Glu Leu Thr Gln Val Leu Pro Gln Trp Ile Arg Val
388 210 215 220
390 Gly Phe Ser Ala Ser Thr Gly Leu Glu Lys
391 225 230
394 <210> SEQ ID NO: 9
395 <211> LENGTH: 15
396 <212> TYPE: PRT
397 <213> ORGANISM: Artificial Sequence

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/476,485B

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Input Set : A:\10823619.app
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:10; Xaa Pos. 14
Seq#:11; N Pos. 3,6,9,12,15,18,21
Seq#:12; N Pos. 3,6,9,15
Seq#:16; N Pos. 3,6,9,12,15
Seq#:24; Xaa Pos. 7
Seq#:31; Xaa Pos. 7
Seq#:32; Xaa Pos. 7
Seq#:33; Xaa Pos. 12
Seq#:34; Xaa Pos. 7
Seq#:36; N Pos. 18
Seq#:58; Xaa Pos. 7
Seq#:59; Xaa Pos. 7

VERIFICATION SUMMARY

DATE: 03/21/2005

PATENT APPLICATION: **US/09/476,485B**

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Input Set : **A:\10823619.app**Output Set: **N:\CRF4\03212005\I476485B.raw**

L:425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:506 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:911 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:930 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:982 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0
L:1541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0